Attachment 1 – Benthic Risk Data Gaps Evaluation Process

Objective:
Use three lines of evidence (LOEs) for assessing benthic risk (floating percentile method, logistic regression method and bioassay results) in conjunction with a weighting framework to evaluate benthic risk data (Round 3 data gap planning)

Question: Is there likely sufficient data to assess benthic risk?

If not enough data to adequately assess benthic risk then rationale for data needed (data gaps) is addressed in criteria

Criteria for evaluating benthic risk LOE's: bioassay/sediment

1. Lack of spatial coverage; not enough data collected to evaluate adequacy of benthic risk evaluation.
2. Extent of risk not bounded.
3. Comparison of LOEs (predictive models and bioassay data)
    A. Lack of concordance between predicted (models) and measured Toxicity (bioassay)
    B. Lack of concordance between predicted models and insufficient toxicity data (bioassay)
    C. Concordance between models and insufficient toxicity

Course of Action:

1. No Action
    - Area with data (predictive model or bioassay) not targeted for Round 3B data collection
2. Potential Data Gap
    - Area identified as requiring additional data collection for adequate characterization based on above Criteria
3. Area of Interest
    - Area identified as Potential Benthic Risk not requiring additional bioassay or surface sediment sampling Round 3B

~~4.Unsure~~
    - ~~Not sure~~

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Based on this evaluation, two types of data gaps were identified:

1. In areas where the LOEs did not agree, additional bioassays were recommended to support the benthic risk component of the baseline risk assessment. This resulted in the addition of 44 additional bioassay samples.
2. In areas where the risks were not well bounded or there was inadequate sediment chemistry spatial coverage, additional sediment chemistry samples were recommended to delineate the lateral extent of benthic risk. This resulted in the addition of 136 additional sediment chemistry samples.